



National Aeronautics and
Space Administration

FSB-SEPG-CH
Revision: E
June 18, 2007

George C. Marshall Space Flight Center
Marshall Space Flight Center, Alabama 35812

Flight Software Branch

Software Engineering Process Group Charter

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OPR Org code		
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Document Approval


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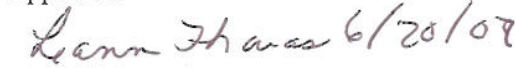
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1.0 PURPOSE

This charter establishes an internal Software Engineering Process Group (SEPG) for the Flight Software Branch (FSB). The SEPG is established to facilitate the definition, maintenance, and improvement of the software processes used by the FSB.

2.0 AUTHORITY

The SEPG is governed by the Management Support Group (MSG). The SEPG chairperson (or designee) is responsible for the overall conduct of the SEPG and reporting status to the MSG.

3.0 RESPONSIBILITIES

The responsibilities and procedures required by this charter are applicable to all software development efforts within the FSB.

The SEPG is responsible for:

1. Defining, documenting, and maintaining the software development processes in the Software Development Process Description Document (SDPDD).
2. Reporting process improvement status to MSG.
3. Establishing and maintaining the Software Process Improvement (SPI) Plan.
4. Managing and controlling software process assets, references, best practices, lessons learned, and tools using the FSB Process Asset Library (PAL).
5. Preparing and maintaining the FSB Training Plan.
6. Updating the FSB Training Plan annually based on updated training requirements or strategy.
7. Planning and coordinating organizational software process training.
8. Maintaining a record of FSB employee organizational process and project related training.
9. Evaluating process issues, proposing process improvements, and recommending plan of action.
10. Planning and organizing peer reviews of organizational documentation and processes.
11. Observing FSB process-related activities and monitoring monthly project status meetings.

4.0 METHOD OF OPERATION

The SEPG meets periodically to discuss the following agenda items:

1. SPI Action Items

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2. SPI Software Change Requests (SCRs) or improvement pilots
3. Evaluate process improvement candidates
4. Review lessons learned and best practice candidates
5. Review training activities
6. Peer Review activities
7. SPI schedule
8. SPI metrics
9. SPI risks

The SEPG addresses process improvement candidates according to the following procedure:

1. Discuss improvement item and obtain consensus to proceed. Discussion includes the initiator.
2. SEPG presents improvement item to MSG for approval.
3. If approved, SEPG or initiator submits Type I SCR to pilot the improvement item, if required.
4. SEPG presents recommended process improvements to the FSB Software Review Board (SRB).
5. SRB approves the SCR and assigns any needed resources to implement the pilot.
6. The SEPG develops an implementation plan for process improvements approved by the FSB SRB.

The SEPG selects and maintains Lessons Learned and Best Practices according to the following procedure:

1. SEPG is notified of a Lessons Learned/Best Practice candidate via email.
2. A Lessons Learned/Best Practice candidate is provided electronically to the SEPG.
3. SEPG discusses the Lessons Learned/Best Practice candidate with the submitter as necessary.
4. SEPG reaches consensus to accept or reject the Lessons Learned/Best Practice candidate.
 - Acceptance is based on:
 - Relevance to the FSB software development process
 - Adherence to any applicable standards/guidelines
 - Rejection is based on:
 - Conflict with any applicable standards/guidelines
 - Not relevant to the FSB software development process
 - Product is outdated or overcome by events
5. If accepted, SEPG places the product in the Lessons Learned/Best Practice folder(s).
6. If rejected, SEPG provides explanation to the submitter.

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7. SEPG determines whether there are obsolete examples that need to be removed, and if so, deletes the obsolete example.

SEPG Process to document, maintain, and control the FSB organizational process:

- Organizational processes are documented in the Software Development Process Description Document (SDPDD).
- The SEPG submits proposed changes to the SDPDD to the SRB via Software Change Request.
- Changes to the SDPDD are authorized by SRB approval of associated Software Change Request(s).
- The SEPG provides revised SDPDD to the SRB.
- The FSB Master List Custodian informs the group of revisions to the SDPDD.
- The SEPG provides any necessary training concerning updates to the SDPDD.

SEPG Process for maintaining assets and entering them into the PAL:

1. SEPG collects the process asset candidate.
2. SEPG discusses the process asset candidate with the submitter as necessary.
3. SEPG reaches consensus to accept or reject the process asset candidate.
 - Acceptance is based on:
 - Relevance to the FSB software development process
 - Adherence to any applicable standards/guidelines
 - Rejection is based on:
 - Conflict with any applicable standards/guidelines
 - Not relevant to the FSB software development process
 - Product is outdated or overcome by events
4. If accepted, SEPG places the product in the PAL.
5. If rejected, SEPG provides explanation to submitter.

SEPG determines whether there are obsolete assets that need to be removed as a result of the new data, and if so, archives the obsolete asset.

The SEPG records the proceedings and documents all actions of the meetings. Action items are assigned and logged. Actions assigned by the SEPG are closed at a meeting of the group.

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5.0 MEMBERSHIP

The SEPG Membership is as documented in Memo for Record, FSB-SEPG-MEMO-001, Software Engineering Process Group Membership for the FSB.

6.0 FREQUENCY OF MEETINGS

The chairperson convenes the SEPG periodically (nominally every two weeks or more often as necessary) to review the software process improvement activities and perform the functions of the SEPG.

7.0 DURATION OF APPOINTMENT

The duration of all SEPG appointments is indefinite until the MSG authorizes a replacement.

8.0 PRODUCTS

- Organizational documents
- SPI Schedule
- Process Asset Library
- SPI Recommendations
- Action Tracking Log File inputs

9.0 TOOLS

- Software Configuration Management Tools
- Office automation tools
- MSFC servers, networks and desktop systems
- Appraisal Tools
- Metric Tools

10.0 TRAINING

SEPG members receive SEPG training. Record of SEPG training is maintained in the FSB Training Matrix.

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